```
RONALD J. TENPAS
 Acting Assistant Attorney General
 Environment and Natural Resources
     Division
 United States Department of Justice
 Washington, D.C. 20530
ROBERT D. MULLANEY
 Environmental Enforcement Section
 United States Department of Justice
 301 Howard Street, Suite 1050
 San Francisco, California 94105
 Telephone: (415) 744-6491
 Facsimile: (415) 744-6476
 E-mail: robert.mullaney@usdoj.gov
EDWARD H. KUBO, JR. 2499
 United States Attorney
 District of Hawai`i
THOMAS HELPER 5676
 Assistant United States Attorney
 Room 6-100, PJKK Federal Building
 300 Ala Moana Boulevard
 Honolulu, Hawai`i 96850
 Telephone: (808) 541-2850
 Facsimile: (808) 541-2958
```

Attorneys for Plaintiff United States of America

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF HAWAI I

UNITED STATES OF AMERICA, and) NO. CV 06-00140 BMK

DEPARTMENT OF HEALTH, STATE OF)
HAWAI`I,)

Plaintiffs,) FIRST AMENDED CONSENT DECREE;
APPENDIX F1

V.)

JAMES H. PFLUEGER; PFLUEGER)
PROPERTIES; AND PILA`A 400 LLC,)

Defendants.)

OPERATION, MONITORING AND MAINTENANCE PLAN

Pila'a 400 Remediation Plans – Package 1 Pila'a 400 Remediation Plans – Package 2 Remediation Plan for Eastern Plateau Construction Plans for Kaloko Reservoir

Prepared by:

Belt Collins Hawaii Ltd. 2153 North King Street, Suite 200 Honolulu, Hawaii 96819

Revised Consent Decree Version May 1, 2007

OPERATION, MONITORING AND MAINTENANCE PLAN

PART 1 - GENERAL

1.01 DESCRIPTION OF PLAN:

- A. This plan contains operating procedures, monitoring requirements and maintenance practices required to be performed during construction and during the period after construction until the end of the "Consent Decree" period. The geographical scope is limited to the physical construction and landscaping areas referenced in the following documents:
 - 1. Construction Plans for Pila'a 400 Remediation Plans Package 1, Located at Pila'a, Kaua'i, Hawai'i, TMK 5-1-004:008, dated December 16, 2005.
 - 2. Construction Plans for Pila'a 400 Remediation Plans Package 2, Located at Pila'a, Kaua'i, Hawai'i, TMK 5-1-004:008, dated December 16, 2005.
 - 3. Remediation Plan for Eastern Plateau, Located at Pila'a, Kaua'i, Hawai'i, TMK 5-1-004:008, dated December 16, 2005.
 - 4. Construction Plans for Kaloko Reservoir, Located at Pila'a, Kaua'i, Hawai'i, TMK 5-1-002:001, dated December 16, 2005.

1.02 DEFINITIONS:

- A. The Owner will be Pila'a 400, LLC and Pflueger Properties (a Hawaii Limited Partnership).
- B. The Engineer will be Belt Collins Hawaii and its sub-consultants.
- C. The Landscape Architect will be Belt Collins Hawaii and its subconsultants.
- D. The Contractor will be Roger Taniguchi, Inc. and its sub-contractors. The Contractor will be the field agent for the Owner.
- E. "Government Parties" will be the U.S. Environmental Protection Agency (EPA), the State of Hawaii Department of Health, and the County of Kauai.
- F. "Construction Activities" will include physical construction/remediation activities performed under the scope of the Remediation Plans Package

- 1, Remediation Plans Package 2, Remediation Plan for Eastern Plateau, and Construction Plans for Kaloko Reservoir.
- G. "Parties" will be the United States, the State, The County, the Citizens, and the Defendants.

1.03 **REPORTS:**

- A. Field reports will be created by the Engineer and the Landscape Architect and submitted on a monthly basis during periods of actual construction activity. These reports will be submitted to the Parties pursuant to the Consent Decree. The field reports will include:
 - 1. All data collected as a part of the construction monitoring required under Section 1.05.
 - 2. Any maintenance of affected sections of streams, roadways, trails and erosion control structures, and removal of earthslides, as identified in Sections 2.01, 2.02, 2.03 and 2.04.
 - 3. Any repairs performed as identified in Section 2.05.
 - 4. Photographic evidence of work performed, indicating progress, on a weekly basis. Photographic evidence is to be provided with the field reports.
- B. The Engineer and the Landscape Architect will prepare and submit reports required by the Consent Decree on a quarterly basis until the termination of the Consent Decree. These reports will be submitted to the Parties pursuant to the Consent Decree.
- C. Daily rainfall data and daily data on erosion control and best management practices, based on the requirements of the State of Hawaii, Department of Health, shall be collected by the Engineer. The Engineer will prepare and submit bi-weekly rainfall data reports, which include this daily data, in accordance with the requirements of Part 1.k of the Notice of General Permit Coverage ("NGPC"), dated August 30, 2002.
- D. The Engineer and the Landscape Architect will prepare and submit other reports as required by Section 1.06. These reports will be submitted to the Parties pursuant to the Consent Decree.

JOB CONDITIONS: 1.04

A. Long Term Monitoring and Maintenance: Long term monitoring and maintenance will begin after each particular package of work (e.g., Package 1 and Package 2) has completed construction activities and has

- been accepted by the Owner, Engineer, Landscape Architect and the Government Parties.
- В. Maintenance: During periods of actual construction activity the Contractor will keep work areas neat and orderly at all times. Contractor will clean work areas at the end of each workday.

1.05 CONSTRUCTION MONITORING:

- Except as otherwise provided in Section 1.05, until work under a A. particular set of plans (e.g., Package 1 and Package 2) is completed and has been accepted (by the Owner, Engineer, Landscape Architect and Government Parties), the Engineer and Landscape Architect will monitor and inspect construction activities, during periods of actual construction activity on a weekly basis (unless more frequent inspection is required under the NGPC), except that during performance of tasks set forth in Paragraph B, below, monitoring and inspection of construction activities shall be daily. This monitoring and inspection will be performed to provide that:
 - 1. Approved plans are being properly followed and implemented;
 - 2. Best Management Practices (BMPs specified on the plans and subsequently identified) are being properly implemented and maintained; and
 - 3. Applicable permit requirements are followed and known violations are properly reported, and action has been initiated to make needed corrections.
- The Engineer shall take turbidity measurements at the sampling stations В. upstream and downstream of construction areas specified in the 401 Water Quality Certification, as follows:
 - 1. Twice each day during work hours (weekdays and weekend days included), upon initiation and until completion, each of the following tasks as set forth in the Construction Schedule:

Gulch 3:

Task 30 – (Install) Erosion Control Structures – Gulch 3

Task 32 – Install Bypass Pipe and Impoundment

Task 33 – Dewater and Muck/Electroshock Pond 1

Task 34 – Dewater and Muck/Electroshock Pond 2

Task 35 – Dewater and Muck/Electroshock Pond 3

Task 36 – Ponds 2 & 3 Pipes Removal and Spillway

Task 37 – Dewater and Muck/Electroshock Pond 4

Task 41 – Excavation/Embankment to Eliminate Ponds 5, 6 & 7

Gulch 2:

Task 48 – Install Bypass/Diversion Pipe

Task 49 – Construct French Drain Under Existing Rock Berm

Task 52 – Excavation/Embankment to Form New Stream Channel - Phase 1

Task 56 – Excavation/Embankment to Form New Stream Channel - Phase 2

Gulch 4:

Task 62 – (Install) Erosion Control Structures – Lakes 1 and 2

Task 63 – Install Bypass Pipe and Impoundment

Task 65 – Dewater and Muck/Electroshock Lake 1

Task 66 – Excavation & Renovation – Lake 1

Task 70 - Removal of Lake 1 Rock Check Dam and Excavate Lake 1 Embankment

Task 72 – Remove Lake 2 Spillway & Drain Pipe

However, on days no work is performed, no turbidity sampling is required if the area is stabilized.

Once each day during work hours (weekdays and weekend days 2. included), upon initiation and until completion, each of the following tasks as set forth in the Construction Schedule:

Remaining Package 1 Work:

Task 14 – Removal of Shoreline Erosion Control Structures (i.e., berms, etc.)

Gulch 3:

Task 42 – Bypass Pipe and Impoundment Removal

Task 43 – Removal of Gulch 3 Erosion Control Structures (i.e., berms, etc.)

Gulch 2:

Task 55 – Removal Bypass/Diversion Pipe

Task 58 - Removal of Gulch 2 Erosion Control Structures (Existing Berm, etc.)

Gulch 4:

Task 71 – Removal of Lake 2 Rock Check Dam

Task 73 – Remove Bypass Pipe and Impoundment

However, on days no work is performed, no turbidity sampling is required if the area is stabilized.

- 3. On work days, the samples collected shall be representative samples of the stream water quality at the time that the construction activities are actively occurring. On days of no work is performed and the area is not stabilized, the samples collected shall be representative samples of the stream water quality at that time.
- C. Water quality monitoring will be performed by the Engineer as provided by the 401 Water Quality Certification. All water quality testing shall be in accordance with the Hawaii Administrative Rules, Section 11-54-10, entitled "Water Quality Analyses".
- D. The Landscape Architect will monitor and inspect landscaping on a weekly basis during periods of actual construction activity and ensure compliance with the landscape plans (including that appropriate numbers, sizes and densities of specified plants are installed) and other procedures (such as proper soil preparation and adequate provision of temporary irrigation).

LONG TERM MONITORING (FROM COMPLETION AND ACCEPTANCE 1.06 OF CONSTRUCTION TO TERMINATION OF THE CONSENT DECREE):

- A. The Engineer shall provide a semi-annual assessment of the hydraulic functionality of the portions of the stream systems upon which work has been performed according to the methods set forth in 4.15.A.1 and 2. These Assessment Reports shall be submitted to the Parties (as defined in the Consent Decree) within (10) days following each surveying event required in Section 4.15.A.3 and will be reviewed pursuant to paragraphs 14 through 18 of the Consent Decree.
 - 1. The Assessment Reports shall include:
 - All field notes, survey information, photographs, and crossa. section and longitudinal plots. In all Assessment Reports after the baseline survey, the geometry of surveys for crosssections and the longitudinal profiles shall be superimposed on graphs of the baseline geometry. Assessment Reports shall also note any damage to or removal of the geotextiles used to line the channel and upland zones and repairs completed or proposed.
 - Conclusions whether each stream system, upon which work b. has been performed, is functional. Each stream system, upon which work has been performed, shall not be deemed

Document 60

functional if: (1) either the longitudinal profile or crosssection graphs reveal that the channel bed elevation has been lowered by a depth of 18 inches or more; (2) either the longitudinal profile or cross-section graphs reveal that there is significant water flow along one or more flow paths other than, or in addition to, the design channel; or (3) any of the geotextiles used to line the channel and upland zones have been damaged or removed.

- 2. Within twenty (20) days after either (1) the submission of an Assessment Report that determines any stream system upon which work has been performed is not functional or (2) EPA's written rejection of an Assessment Report's conclusion that a stream system upon which work has been performed is functional, the Engineer shall submit to the Parties a Remedial Action Plan describing the actions proposed to achieve functionality or an evaluation why the Engineer has concluded that additional remedial action is inappropriate or impractical. The Remedial Action Plans will be reviewed pursuant to paragraphs 14 through 18 of the Consent Decree.
- 3. If the additional work required by Section 1.06 A.2. requires Defendants to obtain a County grading permit and the County, pursuant to its Ordinances and as determined by the cost estimates for the work submitted on behalf of Defendants, requires Defendants to post a bond or surety in addition to the \$1.6 million that Defendants have posted for work under this Consent Decree, Defendants have the right to dispute the amount, if any, of the additional bond or surety requirement under Section X (Dispute Resolution) of this Decree.
- The Landscape Architect will provide baseline, quarterly (during the first В. year following the completion of landscaping installation at each site) and semi-annual (in subsequent years) assessments of revegetation success according to the methods set forth in 4.15.B.1 and 2. These Assessment Reports shall be submitted to the Parties within (10) days following each surveying event required in Section 4.15.B.3 and will be reviewed pursuant to paragraphs 14 through 18 of the Consent Decree.
 - 1. The Assessment Reports shall include:
 - All field notes, survey information, photographs, plant a. survival rates, and percent cover estimates; inspection and condition of irrigation systems; evaluation of invasive plant and insect control; plans for replanting if needed; and

- recommendations for any changes in maintenance procedures.
- b. Conclusions whether the revegetation work at each site is successful. The revegetation work at a site shall not be deemed successful if: (1) fewer that 80% of non-grass plants within each type (i.e., stream zone shrubs, zone 2 shrubs, and trees) survive; or (2) grassed areas exhibit less than 90% coverage by area.
- 2. Within twenty (20) days after either (1) the submission of an Assessment Report that determines the revegetation work at any site is not successful or (2) EPA's written rejection of an Assessment Report's conclusion that the revegetation work at a site is successful, the Landscape Architect shall submit to the Parties a Remedial Action Plan describing the actions proposed to achieve revegetation success. The Remedial Action Plans will be reviewed pursuant to paragraphs 14 through 18 of the Consent Decree.
- 3. If the additional work required by Section 1.06 B.2. requires Defendants to obtain a County grading permit and the County, pursuant to its Ordinances and as determined by the cost estimates for the work submitted on behalf of Defendants, requires Defendants to post a bond or surety in addition to the \$1.6 million that Defendants have posted for work under this Consent Decree, Defendants have the right to dispute the amount, if any, of the additional bond or surety requirement under Section X (Dispute Resolution) of this Decree.
- C. Until a Notice of Cessation ("NOC") is filed for the National Pollutant Discharge Elimination System ("NPDES") storm water construction permit and acknowledged by the Department of Health Clean Water Branch ("CWB"), the Engineer shall monitor BMPs functionality and performance pursuant to Notice of General Permit Coverage (NGPC) requirements. Upon "NOC" acceptance, the Engineer will monitor BMPs functionality and performance at least quarterly. BMPs functionality will be maintained per Sections 2.03 and 2.05.
- The Contractor shall monitor BMPs in accordance with the "NGPC" and D. the 401 Water Quality Certification requirements to ensure they are functioning and performing properly.
- The monitoring described in 1.06.A and B shall be conducted for the E. durations specified in 4.15.A and B, respectively.

1.07 LONG TERM MAINTENANCE (FROM COMPLETION AND ACCEPTANCE OF CONSTRUCTION TO TERMINATION OF THE CONSENT DECREE):

- A. The Owner and/or Contractor will revegetate as needed with container stock to achieve an 80-percent survival rate (by plant type and within each location) at the end of the first year. The Owner and/or Contractor will revegetate as needed with grasses to achieve a 90-percent coverage at the end of the first year. These survival and coverage rates for plants and grasses respectively will be maintained by the Owner and/or Contractor at this prescribed level until the termination of the Consent Decree. Refer to Sections 2.05, 4.11 and 4.15
- B. BMPs shall be maintained, as required by the "NGPC" and the 401 Water Quality Certification, by the Contractor until such time as applicable "NOCs" are submitted and acknowledged by the "CWB". Post-construction BMPs shall be maintained by the Owner and/or Contractor until the termination of the Consent Decree. Refer to Sections 2.02 and 2.03.
- C. The Owner and/or Contractor will repair and revegetate as appropriate, any areas showing significant erosion or failure. Refer to Sections 2.05 and 4.11.

PART 2 - OPERATIONS

2.01 STREAM CLEARANCE:

- A. Post-Construction: The Owner and/or Contractor will keep streams clear of any major obstructions until the termination of the Consent Decree. The Owner will not construct or place any major obstacles or culverts in the stream after construction until the termination of the Consent Decree. Should the Owner intend to construct or place any major obstacle or culvert in the streams, then appropriate permits and approvals shall be first obtained. The placement of any "fill or dredged material" other than specified in the approved Section 401 Water Quality Certification and Section 404 Department of the Army ("DA") permit to be issued for this project may require other permits and approvals.
- B. The Owner and/or Contractor will cut and maintain the grass within two (2) feet of flowing waterways to a height of twelve inches or less until the termination of the Consent Decree. Grass in areas within two (2) feet of flowing waterways shall be cut using hand tools to prevent the cutting from entering State waters.

2.02 ROADWAYS AND TRAILS:

- A. The Contractor shall maintain BMPs and erosion control structures on and along all roadways and trails that are subject to continued use throughout the site to prevent soil erosion until project site is stabilized and the Consent Decree is terminated. After any rainfall of 0.5 inches or more within 24 hours, the Contractor shall ensure that erosion control structures are inspected and cleaned as needed.
- B. The Owner and/or Contractor will install additional "waterbars" (diversion ditches/swales and rock check dams with geofabric), grassing (with hydromulch mixture), and/or a compacted layer of rock as directed by the Engineer.

2.03 EROSION CONTROL STRUCTURES:

- A. The Contractor shall inspect and maintain all erosion control structures on a regular basis in accordance with the NGPC and 401 Water Quality Certification requirements to ensure that the structures are performing effectively to control pollutants from entering State waters until such time that the project site is stabilized and the Consent Decree is terminated. After any rainfall of 0.5 inches or more per day, the Contractor will ensure that erosion control structures are inspected and cleaned as needed. During dry weather, the Contractor will inspect all erosion control structures once every two weeks.
- B. The Owner and/or Contractor will cut and maintain grass to a height of twelve inches or less until the termination of the Consent Decree within: the interior of erosion control retention basins; the overflow structures of erosion control retention basins; the diversion ditches/swales; and around rock check dams.
- C. If diversion ditches/swales fill with soil, the Owner and/or Contractor will re-cut the ditch/swale as needed to maintain proper flow depth until the termination of the Consent Decree.
- D. If rainfall is 0.5 inches or more per day, the Contractor will stop work and lay down unfastened erosion control matting on unplanted/exposed graded areas. The Contractor shall stockpile additional erosion control matting and other supplies, such as rock, stone, gravel, non-woven porous geotextile, erosion control matting, coir wattles and hydromulch, necessary to maintain and repair the erosion control structures.

2.04 EARTHSLIDES:

The Contractor will remove any significant earthslide material in construction areas during and after construction activities until the termination of the Consent Decree. The Engineer will direct the Contractor where and how to dispose of the removed material.

2.05 **REPAIRS:**

A. Repair/replacement of damaged plant material, roadways and trails, and erosion control structures will be required to meet the requirements of the Consent Decree. Repairs are required until the termination of the Consent Decree.

B. Plant Material

- 1. Based on the Landscape Architect's reports and assessments of revegetation success, the Owner and/or Contractor will provide plant material repairs/replacement to achieve a minimum 80-percent survival of plants and 90-percent coverage of grasses.
- 2. When plants are replaced, the Contractor will advise the Owner and the Landscape Architect in writing of the plants that were replaced and the maintenance to be performed.
- 3. When barren spots need grassing, the Contractor will inform the Owner and the Landscape Architect of the location and describe the materials and methods to be used to re-grass the area.

C. Roadways and Trails

When roadways and trails require repair, the Contractor will 1. provide the Owner and the Engineer with a plan for the repair work. The Contractor will obtain the Engineer's permission prior to performing the work.

D. **Erosion Control Structures**

- 1. When erosion control structures require repair, the Contractor will provide the Owner and the Engineer with a plan for the repair work. The Contractor will obtain the Engineer's permission prior to performing the work.
- 2. If a portion of the soil nail wall facing breaks off, the Contractor and/or Engineer shall submit to the Parties a plan for the repair work, which will be reviewed pursuant to paragraphs 14 through 18 of the Consent Decree. The Contractor will obtain EPA's approval prior to performing the work.

2.06 INVASIVE PLANT SPECIES CONTROL:

- A. Invasive plant species control is required until the termination of the Consent Decree
- B. The Owner and/or Contractor will provide mechanical control (physical weeding and mowing) or chemical control (herbicide application) to control invasive plant species, and to achieve the 80-percent success rate for plants and 90-percent coverage rate for grasses. The 90-percent coverage rate for grasses will be considered met if 90-percent of the area designated for grass coverage is covered by the originally planted grass (Bermuda and Annual Rye). Refer to Section 4.11.
- C. The Owner and/or Contractor is not required to wait for the Landscape Architect's reports prior to performing invasive plant species control. The Owner and/or Contractor will inspect planted areas on a weekly basis, physically removing weeds and/or chemically treating weeds as needed. Grass mowing will be performed by the Owner and/or Contractor as needed to control weeds.

2.07 INSECT CONTROL:

- A. Insect control to protect plants and grasses is required until the termination of the Consent Decree
- B. The Owner and/or Contractor will provide insect control as needed to achieve the 80-percent success rate for plants and 90-percent coverage rate for grasses. The 90-percent coverage rate for grasses will be considered met if 90-percent of the area designated for grass coverage is covered by the originally planted grass (Bermuda and Annual Rye). Refer to Section 4.11.
- C. The Owner and/or Contractor is not required to wait for the Landscape Architect's reports prior to performing insect control. The Owner and/or Contractor will inspect planted areas on a weekly basis, providing insect control as needed.
- D. Pesticides cannot be applied within State waters unless an Individual NPDES permit is obtained from the "CWB".
- E. Potentially harmful diseases and pests that may require control include:
 - 1. For Aleurites moluccana (Kukui): Fungi, such as: Cephalosporium sp., Clitocybe tabescens, Fomes hawaiensis, Gloeosporium aleuriticum, Physalospora rhodina, Polyporus gilvus, Pythium ultimum, Sclerotium rolfsii, Sphaeronema reinkingii, Trametes

- corrugata, Xylaria curta, Ustulina deusta. Nematodes, such as Meloidogyne sp.
- 2. For Cordia subcordata (Kou): Moths and ants.
- 3. For Acacia Koaia (Koaia): Psyllids, such as Psylla uncatoides. Fungi, such as: Endoraecium acacia and others. Diseases, such as Corticium salmonicolor.
- 4. For Hibiscus sp.: Aphids, Japanese beetles, leaf spot, bacterial leaf spot, viral diseases, canker, blight (Botrytis cinerea), and Xanthomonas.
- 5. For *Pisonia Umbellifera* (Papala kepau): Unknown. Potential for red crab predation.
- 6. For Mariscus javanicus (Ahuawa): Unknown.
- 7. For Schoenoplectus juncoides (Kaluha): Unknown.
- 8. For Cladium jamaicense: Unknown.
- 9. For Fimbristylis dichotoma: Unknown.
- 10. For *Plumbago zeylanica*: Moths and butterflies.
- 11. For *Boehmeria grandis* (Akolea): Moths and butterflies.
- 12. Cynodon dactylon For (Common Bermuda): Insects, such as: Mole crickets, Nematodes. armyworms, cutworms, webworms, loopers, white grub, mealybug and bermudagrass mites. Fungal diseases, dollar brown spot, Helminthosporium, spring dead spot, leaf spot and Pythium blight.
- 13. For *Lolium multiflorum* (Annual Ryegrass): Fungal diseases, such as: crown and leaf rust, leaf spot, scald, powdery mildew, and *Pythium* blight. Insects, such as: grass grub, sod webworms and cutworms.

2.08 RAIN GAGE:

- A. The rain gage on-site will be maintained by the Engineer to provide daily rainfall data without interruption, except where an equipment failure requires downtime to repair. Data will only be collected (downloaded) on weekdays (Monday through Friday). The Engineer will maintain an inventory of the following spare parts for replacement in the event of equipment failure:
 - 1. One new rain gage with built-in modem, in NEMA 3X box.
 - 2. One new solar cell panel.
 - 3. One new non-built-in modem for use with current rain gage.
- B. In the event of an inability to download rainfall data, the Engineer shall ensure that a qualified person under the Engineer's supervision visits, inspects, diagnoses and repairs the rain gage problem within 1-business day. If the rain gage is not operable within 1-business day, then the "CWB" shall be notified via telephone within the next-business day. During this site visit, the data shall be downloaded using a direct cable connection. For this site visit, the aforementioned spare parts and all tools necessary to repair the rain gage will be available if needed. Should the diagnosis discover a fault in the telephone line, the Engineer will direct the Contractor to fix the telephone line for the Owner-owned portion of the line or call Verizon to fix the commercial side of the line depending on the problem. If the phone line is the problem, the Engineer will arrange for daily downloading of the data by a direct cable connection.
- C. The Engineer will physically inspect the rain gage on a weekly basis to ensure that the rain gage is functioning properly and correct any problems (such as a clogged rain funnel, low battery voltage, disconnected wire, and physical damage to the rain gage).

PART 3 - MATERIALS

3.01 REPLACEMENT PLANT MATERIALS:

- A. Nomenclatures: Plant material names used in any submittals and reports shall conform to Standardized Plant Names established by American Joint Committee on Horticultural Nomenclature, and names given in In Gardens of Hawaii by Marie C. Neal; except that for names not covered therein, the established custom of the nursery trade is followed.
- B. Condition:

- 1. The Contractor shall furnish plant materials with a normal habit of growth, and sound, healthy, vigorous and free from insect infestation.
- 2. Stolons: Stolons shall be healthy, vegetative material with wellestablished roots at one or more nodes.
- FERTILIZERS AND SOIL CONDITIONERS: Prior to the use of fertilizers and 3.02 soil conditioners, the Contractor shall test the soil at each site for pH, nitrogen, phosphorus, and potassium to determine what fertilizers and additives are needed at specific sites. The Contractor shall use first-quality, standard-brand, agricultural products.

Chemical Fertilizer: A.

1. Controlled-Release Fertilizer: Fertilizer shall be 16-7-12 (N-P-K) with controlled-release fertilizer tablets of 5 and 21 grams, 10-10-5 (N-P-K), or approved equivalent.

В. Organic Soil Conditioner:

1. Organic soil conditioner shall be "EKo-Compost", or other acceptable equal organic material provided by the Owner.

C. Hydromulch:

- 1. Hydromulch fibers shall be specially processed fiber containing no growth inhibiting factors.
- 2. Hydromulch for re-grassing shall contain fertilizer with a concentration of 1 pound of nitrogen per 1,000 square feet, annual ryegrass seed at a concentration of 1 pound per 1,000 square feet, and common Bermuda grass seed at a concentration of 6 pounds per 1,000 square feet. If the area to be re-grassed is steeper than a slope of 2 horizontal to 1 vertical, Airtrol SS additive shall be added to the hydromulch mixture at a concentration of 138 pounds per 1,000 square feet.
- 3. Hydromulch containing any fertilizer shall not be directly applied within State waters, and hydromulch shall not be allowed to enter State waters. In lieu of using a machine to apply hydromulch within 5 feet of State waters, hand application shall be used to apply hydromulch within 5 feet of State waters.
- 3.03 BACKFILL MIX FOR RE-PLANTING: Backfill mix shall consists of 4 parts of Imported Planting Soil and 1 part of approved Organic Soil Conditioner.